

SQ	Sequence 1108 BP;	1	234 A;	274 C;	324 G;	271 T;	0 U;	5 Other;
Query Match	89.0% ;	Score 1011.4 ;	DB 6 ;	Length 1108;				
Best Local Similarity	99.6% ;	Pred. No. 5.5e-234; 4;	Mismatches 4; Gaps 0;					
Matches 1059; Conservative								
Qy	15	CGCGGGAGGGAACCCGGGAGGCCGGAGTCGGCTGGAGACAGGATCTAG	74					
Db	1	CGCGGGAGGGAACCCGGGAGGCCGGAGTCGGCTGGAGACAGGATCTAG	60					
Qy	75	CCTGGTCACTCTGTGAACTACTGACTGAACTCCCTCAAATTCTGTCG	134					
Db	61	CCTGGTCACTCTGTGAACTACTGACTGAACTCCCTCAAATTCTGTCG	120					
Qy	135	ATCAGGGACCACAGCGCTGGAGGATGGGGATTTGCAATGGAAATTGTC	194					
Db	121	ATCAGGGACCACAGCGCTGGAGGATGGGGATTTGCAATGGAAATTGTC	180					
Qy	195	AGGAQGACGACCCCCGAGCTGGAGGACACTACCCAGCAGGATGATTC	254					
Db	181	AGGAQGACGACCCCCGAGCTGGAGGACACTACCCAGCAGGATGATTC	240					
Qy	255	AGAGCTTCTCAATAGGGGCACTGGTCTCCCGAGGGGCTCTGGGCT	314					
Db	241	AGAGCTTCTCAATAGGGGCACTGGTCTCCCGAGGGGCTCTGGGCT	300					
Qy	315	AGGCAGGTGAGGTGGTGCTCTGCTGCTGCTGCTGCTGCTGCTG	374					
Db	301	AGGCAGGTGAGGTGGTGCTCTGCTGCTGCTGCTGCTGCTGCTG	360					
Qy	375	TGAACATGGCTCTTCCGAGTGGATCTGGCACCATGCTGGGACCTG	434					
Db	361	TGAACATGGCTCTTCCGAGTGGATCTGGCACCATGCTGGGACCTG	420					
Qy	435	TCCRGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	494					
Db	421	TCCRGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	480					
Qy	495	TCTACCTGGTGTCCACCTGAGTCGGCTGACTCTGAGGGCTGATGG	554					
Db	481	TCTACCTGGTGTCCACCTGAGTCGGCTGACTCTGAGGGCTGATGG	540					
Qy	555	TTGAGAAGGACTCTGGCTGGCTCTGGCTGGCTGGCTGGCTGG	614					
Db	541	TTGAGAAGGACTCTGGCTGGCTGGCTGGCTGGCTGGCTGG	600					
Qy	615	TGCCCTGAAGGTATGATCAGAGGGACACAGGTGCTGTTCCCTTG	674					
Db	601	TGCCCTGAAGGTATGATCAGAGGGACACAGGTGCTGTTCCCTTG	660					
Qy	675	GTCAGGAGGAGGAGCTTCAAGTGTGGTGGCTGGTTGGTTC	734					
Db	661	GTCAGGAGGAGGAGCTTCAAGTGTGGTGGCTGGTTGGTTC	720					
Qy	735	CGAGATACTTTAGTGGATGGCTGCTCATTAAGTGGCACAAATCAG	794					
Db	721	CGAGATACTTTAGTGGATGGCTGCTCATTAAGTGGCACAAATCAG	780					
Qy	795	CGATGCCCTTCCAATTCTCAATCCPHTTATGCGAGAAATCTGCA	854					
Db	781	CGATGCCCTTCCAATTCTCAATCCPHTTATGCGAGAAATCTGCA	840					
Qy	855	CATGTCCTGATGCCCTGAGGAGCATGGAGCTCTCTCTCTCTCT	914					
Db	841	CATGTCCTGATGCCCTGAGGAGCATGGAGCTCTCTCTCTCTCT	900					
Qy	915	GGCTTAGGGAGGTGAAATACTTCAAGTCTGGATCTGGATCTGG	974					
Db	901	GGCTTAGGGAGGTGAAATACTTCAAGTCTGGATCTGGATCTGG	960					
Qy	975	TATTTTATGGCTACTTTATGTTAGGAGCAAGTGTGGCTGCTG	1034					
Db	961	TATTTTATGGCTACTTTATGTTAGGAGCAAGTGTGGCTGCTG	1020					

R	R	23-MAY-1997;	9705-00475949P;
R	R	23-MAY-1997;	9705-00475959P;
R	R	23-MAY-1997;	9705-0047596P;
R	R	23-MAY-1997;	9705-0047597P;
R	R	23-MAY-1997;	9705-0047598P;
R	R	23-MAY-1997;	9705-0047599P;
R	R	23-MAY-1997;	9705-0047600P;
R	R	23-MAY-1997;	9705-0047610P;
R	R	23-MAY-1997;	9705-0047612P;
R	R	23-MAY-1997;	9705-0047613P;
R	R	23-MAY-1997;	9705-0047614P;
R	R	23-MAY-1997;	9705-0047615P;
R	R	23-MAY-1997;	9705-0047617P;
R	R	23-MAY-1997;	9705-0047618P;
R	R	23-MAY-1997;	9705-0047632P;
R	R	23-MAY-1997;	9705-0047633P;
R	R	06-JUN-1997;	9705-0048964P;
R	R	06-JUN-1997;	9705-0048965P;
R	R	13-JUN-1997;	9705-0049610P;
R	R	08-JUL-1997;	9705-0052874P;
R	R	16-JUL-1997;	9705-0055724P;
R	R	18-AUG-1997;	9705-0056630P;
R	R	22-AUG-1997;	9705-0056631P;
R	R	22-AUG-1997;	9705-0056632P;
R	R	22-AUG-1997;	9705-0056633P;
R	R	22-AUG-1997;	9705-0056634P;
R	R	22-AUG-1997;	9705-0056635P;
R	R	22-AUG-1997;	9705-0056636P;
R	R	22-AUG-1997;	9705-0056637P;
R	R	22-AUG-1997;	9705-0056638P;
R	R	22-AUG-1997;	9705-0056639P;
R	R	22-AUG-1997;	9705-0056845P;
R	R	22-AUG-1997;	9705-0056846P;
R	R	22-AUG-1997;	9705-0056847P;
R	R	22-AUG-1997;	9705-0056872P;
R	R	22-AUG-1997;	9705-0056874P;
R	R	22-AUG-1997;	9705-0056875P;
R	R	22-AUG-1997;	9705-0056876P;
R	R	22-AUG-1997;	9705-0056877P;
R	R	22-AUG-1997;	9705-0056884P;
R	R	22-AUG-1997;	9705-0056887P;
R	R	22-AUG-1997;	9705-0056888P;
R	R	22-AUG-1997;	9705-0056889P;
R	R	22-AUG-1997;	9705-0056890P;
R	R	22-AUG-1997;	9705-0056910P;
R	R	22-AUG-1997;	9705-0056911P;
R	R	05-SEP-1997;	9705-0057650P;
R	R	05-SEP-1997;	9705-0057763P;
R	R	12-SEP-1997;	9705-0058781P.
R	R	02-OCT-1997;	9705-0061060P.

QY CATTAACTGGACAAAATCAGGCAAGAAAGGATGCCATTCCATTCTCATCCCT 823
 Db CATTAACTGGACAAAATCAGGCAAGAAAGGATGCCATTCCATTCTCATCCCT 780
 QY TTATGCCGAGAGATCTCGCTGGATGCCAACATGTCGATGCCATGGAGAGATGCC 883
 Db TTATGCCGAGAGATCTCGCTGGATGCCAACATGTCGATGCCATGGAGAGATGCC 840
 QY GAGGTCTCTCGCTAGGGAGGACTTGGCTTAGGGCAGGGTGAAATACTCCAGA 943
 Db GAGGTCTCTCGCTAGGGAGGACTTGGCTTAGGGCAGGGTGAAATACTCCAGA 900
 QY CTTTTAGCTCTGTTTGTGTTAATGGTATTTTATGGCTACTTTATGGTTAGC 1003
 Db CTTTTAGCTCTGTTTGTGTTAATGGTATTTTATGGCTACTTTATGGTTAGC 960
 QY ACRAGTGTAGGGCATTCATTTATGGACCTTTCAATAATAAGATTAAATAAAAAA 1063
 Db ACRAGTGTAGGGCATTCATTTATGGACCTTTCAATAATAAGATTAAATAAAAAA 961
 QY AAAAAAAATAAAAAA 1077
 Db AAAAAAAATAAAAAA 1034

RESULT 4
ABST7545
ID ABST7545 standard; cDNA; 1049 BP.

XX 15-JAN-2003 (first entry)

DE Human cDNA #1 for novel secreted protein gene 48.

XX AC ABST7545;

XX Human; ss; gene; secreted protein; autoimmune disease; Chemotaxis;
 KW rheumatoid arthritis; hyperproliferative disorder; breast neoplasm;
 KW liver neoplasm cardiovascular disorder; cardiac arrest; skin aging;
 KW cerebrovascular disorder; cerebral ischaemia; angiogenesis; sunburn;
 KW nervous system disorders; Alzheimer's disease; infection;
 KW ocular disorder; corneal infection; wound healing; tissue regeneration;
 KW epithelial cell proliferation; organ transplantation; food additive;
 KW preservative; nutritional.

XX Homo sapiens.

XX US6420526-B1.

PD 16-JUL-2002.

XX 08-SEP-1998; 98US-00149476.

PR 07-MAR-1997; 97US-0038621P.
 PR 07-MAR-1997; 97US-0040161P.
 PR 07-MAR-1997; 97US-0040162P.
 PR 07-MAR-1997; 97US-0040163P.
 PR 07-MAR-1997; 97US-0040333P.
 PR 07-MAR-1997; 97US-0040334P.
 PR 07-MAR-1997; 97US-0040336P.
 PR 07-MAR-1997; 97US-0040626P.
 PR 11-APR-1997; 97US-0043311P.
 PR 11-APR-1997; 97US-0043312P.
 PR 11-APR-1997; 97US-0043313P.
 PR 11-APR-1997; 97US-0043314P.
 PR 11-APR-1997; 97US-0043315P.
 PR 11-APR-1997; 97US-0043568P.
 PR 11-APR-1997; 97US-0043569P.
 PR 11-APR-1997; 97US-0043576P.
 PR 11-APR-1997; 97US-0043578P.
 PR 11-APR-1997; 97US-0043580P.
 PR 11-APR-1997; 97US-0043669P.
 PR 11-APR-1997; 97US-0043670P.

APPENDIX - A

45

XX (HUMA-) HUMAN GENOME SCI INC.

RESULT 4

AB573545 AB573545 standard; cDNA: 1049 BP.

XX Ruben SM, Rosen CA, Fischer CL, Soppet DR, Carter KC;
 PI Bednarik DP, Endress GA, Yu G, Ni J, Feng P, Young PE, Greene JM;
 PI Ferri AM, Duan R, Hu J, Florene RA, Olsen HS, Edner R, Brewer LA;
 PI Moore PA, Shi Y, Lafleur DW, Li Y, Zeng Z, Kyaw H;
 XX WPI: 1998-506364/43.
 DR P-PSDB; AIW74778.

XX New isolated human genes and the secreted polypeptide(s) they encode -
 PT useful for diagnosis and treatment of e.g. cancers, neurological
 disorders, immune diseases, inflammation or blood disorders.
 XX Claim 1; Page 280; 721PP; English.

XX This sequence represents a nucleic acid molecule designated Gene 48 from
 CC the human cDNA clone HRCM174 (deposited as clone ATCC 97899 and ATCC
 CC 29045) which encodes a secreted human protein. The gene can be used to
 CC generate fusion proteins by linking to the gene to a human immunoglobulin
 CC Fc portion (e.g. AAU59502) for increasing the stability of the fused
 CC protein as compared to the human protein only. The invention relates to
 CC 186 novel genes and their fragments (nucleic acid sequences: AAU59511-
 CC V59812; amino acid sequences AAU4731-W75026) which are useful for
 CC preventing, treating or ameliorating medical conditions e.g. by protein
 CC or gene therapy. Also, pathological conditions can be diagnosed by
 CC determining the amount of the new polypeptides in a sample or by
 CC determining the presence of mutations in the new polynucleotides.
 CC Specific uses are described for each of the 186 polynucleotides, based on
 CC which tissues they are most highly expressed in (see AAU59511 for
 CC described uses).
 XX Sequence 1049 BP; 223 A; 258 C; 303 G; 265 T; 0 U; 0 Other;

SQ 7.82e-51 Length: 1049
 Pred. No.: Score: 632.00 Matches: 121
 Percent Similarity: 100.00% Conservative: 0
 Best Local Similarity: 100.00% Mismatches: 0
 Query Match: 100.00% Indels: 0
 DB: 2 Gaps: 0

US-10-001-885-125 (1-121) x AAU59558 (1-1049)

Qy 1 MetValArgIleLeuAlaAspGlyGluIleValGlnAspAspAspProArgValArgThr 20
 Db 116 ArgGTrcGGATCTGGCAATGGAAATCTGAGGAACGCCGAGTGGAGAAC 175
 Qy 21 ThrThrGlnProProArgGlySerIleProArgGlnSerPhePheAsnArgGlyHisCly 40
 Db 176 ACTACCAGGCCACCAAGGGPAGCAATTCTGAGAGCTCTTCATAATGGGCCATGGT 235
 Qy 41 AlaProProGlyGlyProArgGlyProArgGlnGlnAlaGlyAlaArgLeuGlyAlaAla 60
 Db 236 GCTCCCCAGGGGTCTGGCCGCCACGAGGAGCTGGCTGGGGGGCTCT 295
 Qy 61 GlnSerProPheAsnAspLeuAsnArgGlnLeuValAsnMetGlyPheProGlnTrpHis 80
 Db 296 2AGTCCTCTCAATGACTCAAACCGGCAAGTGTTGAACTGGGTTTCGAGTGCA 355
 Qy 81 LeuGlyValHisAlaValGluIuproValThrSerIleLeuIleLeuLeuMetMet 100
 Db 356 CTCGGCAACCTGGCTGAGCCGGTGAACCCGCCTGTCATGATG 415
 Qy 101 LeuGlyValArgGlyLeuLeuIleValGlyLeuValSerHisLeuSerGln 120
 Db 416 CTTGGGTGTCGGGCTCTCTGGTGTGCTGCTGTTGCTGTTGCTGTTGAGTAG 475
 Qy 121 Arg 121
 Db 476 CGG 478

XX Human; ss; gene; secreted protein; autoimmune disease; chemotaxis;
 XX KW rheumatoid arthritis; hyperproliferative disorder; breast neoplasm;
 KW liver neoplasm cardiovascular disorder; cardiac arrest; skin aging;
 PT cerebrovascular disorder; cerebral ischaemia; angiogenesis; sunburn;
 KW nervous system disorder; Alzheimer's disease; infection;
 KW ocular disorder; corneal infection; wound healing; tissue regeneration;
 KW epithelial cell proliferation; organ transplantation; food additive;
 KW preservative; nutritional.

XX Human cDNA #1 for novel secreted protein gene 48.

XX DE DT DE Human cDNA: 1049 BP.
 XX AC AC XX
 XX DT DE Human cDNA standard; cDNA: 1049 BP.
 XX AC AC XX
 XX DT DE Human cDNA #1 for novel secreted protein gene 48.

XX PR 08-SEP-1998; 98US-00149476.
 XX PR 07-MAR-1997; 97US-0038621P.
 XX PR 07-MAR-1997; 97US-0040161P.
 XX PR 07-MAR-1997; 97US-0040162P.
 XX PR 07-MAR-1997; 97US-004163P.
 XX PR 07-MAR-1997; 97US-0040333P.
 XX PR 07-MAR-1997; 97US-0040334P.
 XX PR 07-MAR-1997; 97US-004136P.
 XX PR 07-MAR-1997; 97US-0040462P.
 XX PR 11-APR-1997; 97US-004311P.
 XX PR 11-APR-1997; 97US-004312P.
 XX PR 11-APR-1997; 97US-004313P.
 XX PR 11-APR-1997; 97US-004314P.
 XX PR 11-APR-1997; 97US-004315P.
 XX PR 11-APR-1997; 97US-004316P.
 XX PR 11-APR-1997; 97US-004317P.
 XX PR 11-APR-1997; 97US-004318P.
 XX PR 11-APR-1997; 97US-004319P.
 XX PR 11-APR-1997; 97US-004320P.
 XX PR 11-APR-1997; 97US-004321P.
 XX PR 11-APR-1997; 97US-004322P.
 XX PR 11-APR-1997; 97US-004323P.
 XX PR 11-APR-1997; 97US-004324P.
 XX PR 11-APR-1997; 97US-004325P.
 XX PR 11-APR-1997; 97US-004326P.
 XX PR 11-APR-1997; 97US-004327P.
 XX PR 11-APR-1997; 97US-004328P.
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 XX PR 11-APR-1997; 97US-004330P.
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 XX PR 11-APR-1997; 97US-004351P.
 XX PR 11-APR-1997; 97US-004352P.
 XX PR 11-APR-1997; 97US-004353P.
 XX PR 11-APR-1997; 97US-004354P.
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 XX PR 11-APR-1997; 97US-004361P.
 XX PR 11-APR-1997; 97US-004362P.
 XX PR 11-APR-1997; 97US-004363P.
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 XX PR 11-APR-1997; 97US-004372P.
 XX PR 11-APR-1997; 97US-004373P.
 XX PR 11-APR-1997; 97US-004374P.
 XX PR 23-MAY-1997; 97US-004375P.
 XX PR 23-MAY-1997; 97US-004376P.
 XX PR 23-MAY-1997; 97US-004377P.
 XX PR 23-MAY-1997; 97US-004378P.
 XX PR 23-MAY-1997; 97US-004379P.
 XX PR 23-MAY-1997; 97US-004380P.
 XX PR 23-MAY-1997; 97US-004381P.
 XX PR 23-MAY-1997; 97US-004382P.
 XX PR 23-MAY-1997; 97US-004383P.
 XX PR 23-MAY-1997; 97US-004384P.
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 XX PR 23-MAY-1997; 97US-004387P.
 XX PR 23-MAY-1997; 97US-004388P.
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 XX PR 23-MAY-1997; 97US-004391P.
 XX PR 23-MAY-1997; 97US-004392P.
 XX PR 23-MAY-1997; 97US-004393P.
 XX PR 23-MAY-1997; 97US-004394P.
 XX PR 23-MAY-1997; 97US-004395P.